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Report of the Secretary-General

Summary

The present report was prepared at the request of the Statistical Commission at its thirty-third session.[a] The work programme of the United Nations Statistics Division (UNSD) in the area of natural resources and environment statistics covers two major complementary fields: environmental statistics and indicators, and environmental accounting. The present report focuses on developments in the area of environmental statistics and indicators. It (a) summarizes the results of the two international collections of environmental data carried out by UNSD, in 1999 and 2001, and draws conclusions with relevance to future work, and (b) outlines a work programme for the improvement of the regular collection, compilation and dissemination of international environment statistics.

Points for discussion by the Commission are contained in paragraph 20.

[a] See *Official Records of the Economic and Social Council, 2002, Supplement No. 4* (E/2002/24), chap. I.A.

* E/CN.3/2003/1.

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I. Introduction

1. The work programme of the United Nations Statistics Division (UNSD) in the area of natural resources and environment statistics covers two major complementary fields: environmental statistics and indicators, and environmental accounting. The Statistical Commission will discuss the report on environmental accounting at its next session, the thirty-fifth. The present report focuses on developments in the area of environmental statistics and indicators. It summarizes the results of the two international collections of environmental data carried out by UNSD, in 1999 and 2001, and draws conclusions with relevance to future work towards the improvement of regular reporting.

II. Background

2. At its twenty-eighth session, in 1995, the Statistical Commission approved the list of environmental indicators, developed in collaboration with the Intergovernmental Working Group on the Advancement of Environment Statistics, for international compilation by UNSD. The Working Group on International Statistical Programmes and Coordination, at its nineteenth session (10-12 February 1998), endorsed the proposed first international compilation of environmental indicators and encouraged national statistical services and international organizations to fully participate in this exercise.

3. UNSD conducted its first data collection in 1999, gathering data from 168 countries. According to the agreement between the Organisation for Economic Cooperation and Development (OECD) and UNSD, the countries covered by the joint OECD/Statistical Office of the European Communities (EUROSTAT) Questionnaire on the State of the Environment were excluded from the data collection. The UNSD Questionnaire on Environment Statistics and Indicators was based on the list of indicators developed by the Intergovernmental Working Group. Those indicators already being collected by other United Nations agencies and other international institutions were excluded from the questionnaire whenever possible in order to reduce duplication. Compatibility with the OECD/EUROSTAT data collection was ensured by the use of identical definitions and classifications.

4. The results of the first data collection revealed several areas for improvement. The lessons learned in the course of this very first attempt at collecting environment statistics from mainly non-industrialized countries contributed to a substantial revision of the UNSD Questionnaire on Environment Statistics and the entire data collection and treatment process. The second data collection, using the revised questionnaire, was conducted during the second half of 2001.

III. The second data collection process and the United Nations Statistics Division Questionnaire 2001 on Environment Statistics

5. Below are described the main changes and revisions to the UNSD Questionnaire 2001 and the data collection and treatment process.

Revision of the questionnaire and preparation of a guidance document

6. The questionnaire was revised to achieve a better balance between international demands and countries' capabilities to provide data, in accordance with the experience gained from the first data collection exercise, in 1999. The revisions include conceptual and technical ones, as well as the prioritization of data in each table and the inclusion of record-specific footnotes. The questionnaire was divided into four separate sections, covering the topics water, air, waste and land. In addition, a guidance document was developed that described the variables, classifications and terms in more depth, as well as the practical aspects of data collection, section by section.

Database development and computerization of the questionnaire

7. Subsequent to its first data collection, UNSD embarked on the development of an environmental statistics database to store and edit environmental statistics and metadata from the questionnaire and relevant environmental and socio-economic data from United Nations agencies and international institutions. The database further serves for the production of reports on environment statistics, as well as regular data collection, through electronic pre-filling of the questionnaire in English, French and Spanish. The pre-filled questionnaires can be sent to the countries via electronic mail. The blank questionnaires can be downloaded in the aforementioned languages, together with the guidance document, from http://unstats.un.org/unsd/environment/questionnaire2001.htm.

Promoting collaboration at the national level

8. The questionnaire and the guidance document were sent this time not only to the national statistical offices, but also (for information) to each country's Ministry of Environment or other relevant organization. The statistical offices were asked to act as focal points for the compilation of responses, while the ministries were asked to participate and assist the statistical offices in this effort.

Contact address database

9. The mailing procedure included in-depth contact address research to assure delivery to the appropriate institution, especially in countries and territories lacking established institutional infrastructure. Countries were requested to provide a focal person for each section of the questionnaire, as well as a contact person and contact institution for each table within each section. UNSD established a contact address database for storing contact information on focal points, contact persons and contact institutions for the four sections of the questionnaire.

Communication and follow-up

10. The data collection was accompanied by an intensified communication and follow-up process with the countries involved, which contributed to the improvements in questionnaire delivery and data reporting.

Validation process

11. UNSD carried out an extensive process of validating the responses to the questionnaire by reviewing the data received and asking countries for clarification.

As part of this process, the data underwent a series of quality assurance and control procedures. In addition, an assessment of other national, regional and international data sources available in publications, on the Internet, etc., was carried out for all countries that responded to the questionnaire. The validation process, in close consultation with the countries, has provided an opportunity to improve data quality and strengthen collaboration between UNSD and the relevant institutions in the countries.

IV. Results of the United Nations Statistics Division Questionnaire 2001 on Environment Statistics

12. Table 1 presents a comparative summary of the responses to the 1999 and 2001 questionnaires in both absolute terms and percentage terms.

Table 1
Response rates by type of response for the 1999 and 2001 data collection exercises (date of closure: September 2002)

	Number of responses		*Percentage*	
Type of response	*1999*	*2001*	*1999*	*2001*
Questionnaire completed	49	62	29	35
No data available	4	8	2.4	4.5
Questionnaire forwarded to another agency	8	4	4.8	2.3
Compendium/publication or additional material sent	4	4	2.4	2.3
Country needs more time/will send data later	1	6	0.6	3.4
Questionnaire not deliverable	2	0	1.2	0
Total responses	**68**	**84**	**40**	**47**
Non-responses	100	93	60	53
Total questionnaires	**168**	**177**	**100.0**	**100.0**

13. The total number of country responses to the 2001 questionnaire was 84, up from 68 in 1999 (a 24 per cent increase). Sixty-two countries returned completed questionnaires, representing an increase of 6 percentage points (from 29 to 35 per cent). Furthermore, there was an increase in the total number of countries and territories covered by the data collection (from 168 to 177) due to the inclusion of overseas territories and dependencies.

14. Substantial differences can be observed in the development and availability of environment statistics when the questionnaire results are analysed at the regional level and by topic. Table 2 gives a regional overview of the rates of completion. The first column shows the overall rate of completion, the second column represents the completion of priority variables, and the subsequent columns indicate performance by topic. Degrees of completeness was calculated as the ratio of filled cells to the

total number of cells.[1] The results also reflect the lack of complete time series: as most tables asked for annual data from 1990 to 2000, partial time series resulted in lower ratios. Overall completeness was calculated as a weighted average of the four topics, with the weights proportional to the fraction of total cells contained in each topic.

Table 2
Summary of rate of completion by geographical region

Geographical region	*All variables*	*Priority variables*	*Water*	*Air*	*Waste*	*Land*
Africa	10.6	11.5	12.9	8.7	7.5	11.3
Asia	16	17.4	17.7	19.1	7.9	9.2
Europe	19.8	23.8	21.9	21.7	10.8	15.9
South America	5.8	9.7	6.9	4.3	2.5	9.8
Oceania	1.9	4.3	0.3	0.3	3.3	11.5

15. The regions comprise only those countries and territories that are not covered by the data collections of the European Union and OECD. Territories and dependencies were allocated to the geographical region in which they are located. As the table shows, the Eastern European countries provided almost 20 per cent of the requested information, followed by countries of Asia (16 per cent), Africa (11 per cent), South America (6 per cent) and Oceania (2 per cent). The prioritization of the variables yielded marginally higher rates of completion.

16. A more detailed analysis of the overall results of the 2001 data collection exercise for each table under the four topics — water, air, waste and land — is provided in annex I. The analysis covers performance for the high-priority variables and compares it with the top-performing variables, indicating the level of correspondence between priorities established in the questionnaire and availability of data. It also provides some background information for the interpretation of the results.

V. Conclusions and future work

17. There was a considerable improvement in the number and quality of responses from the first data collection to the second. Despite this development, response rates, especially in terms of completeness, and data quality are still far from satisfactory. The reasons for that are manifold. The main problems are summarized as follows:

(a) Due to differences of natural, social and economic conditions, the relevance and/or importance of environmental issues differ from country to country. This is reflected in the development of countries' environmental information systems and also in the resources available for the production of environmental information;

(b) Only a few countries have established clear institutional responsibilities for environment statistics. The data that are produced by different institutions for

different purposes are not compiled systematically into an environment statistics framework. Therefore, the completion of the questionnaire would require considerable efforts in terms of access to data, cooperation and coordination at the country level;

(c) With very few exceptions, there are no globally accepted standard methods, concepts, definitions and classifications available that countries could use when developing their environment statistics.

18. The improvement in reporting that is represented by the comparison of the 1999 and 2001 questionnaire results and feedback from countries participating in the data collection suggests that even though the tables show data gaps or low levels of completeness, it is important to continue international data collection. The need for environmental information is increasing at both the national and the international level. Concepts and methods are being developed and/or revised on a continuous basis. Commitments to international conventions, agreements, protocols or conference targets require both national and international follow-up and create new demand for environmental information.

19. Therefore, it is recommended that in the area of environment statistics continued priority be given to the continuous improvement of regular reporting and dissemination of environment statistics, with a focus on statistics needed for environmental indicators. This objective should be achieved through the following actions:

(a) *Continuation and strengthening of the biennial UNSD environmental data collection*. Further efforts have to be made to establish nominated focal points for data collection in the countries, both at the national statistical offices and the environmental ministries. More work has to be done to facilitate collaboration between the institutions engaged in the production of environmental information at the national level. This will be done through a joint effort with the United Nations Environment Programme. Contacts with countries have to be further strengthened. A regular discussion forum will be created to improve reporting and feedback;

(b) *Regular revision of the UNSD Questionnaire on Environment Statistics*. The questionnaire has to be revised on a regular basis to take account of conceptual and methodological developments, suggestions from countries and new, emerging data demands. The variables have to be further prioritized according to data needs. Compatibility with the OECD/EUROSTAT data has to be ensured throughout the revisions of both questionnaires, so as to have a core set of variables of common interest;

(c) *Production of detailed compilation manuals for developing countries*. The aim of this is to facilitate the development of their environment statistics and standardized reporting;

(d) *Establishment of a flexible dissemination system*. The dissemination system has to be adaptable in scope, content and geographical coverage in response to new developments. The biennial publication of environmental statistics and indicators (in print and on the Internet), based on the UNSD data collection and completed with data from other international sources, will be accompanied by the gradual development of environmental country profiles (on the Internet, continuously updated as new data become available). With improvements in the

quantity and quality of data, the environment statistics database will be developed into an online database;

(e) *Development of training material.* This will be for use in regional and subregional training workshops, with a focus on the UNSD Questionnaire on Environment Statistics;

(f) *Organization of regular regional and subregional training workshops and other forms of training in environment statistics.* Preferably, this should be accomplished through joint efforts with other international organizations;

(g) *Continuous cooperation with the international organizations engaged in environmental data production and reporting as well as with the regional commissions of the United Nations.* Such cooperation should be maintained in all the above-mentioned areas;

(h) *Establishment of an inter-agency working group.* The working group would deal with the coordinated and collaborative organization of activities in data collection, methodological work, training and capacity-building in environment statistics.

VI. Points for discussion

20. The Statistical Commission is invited to:

(a) Comment on the conclusions drawn from the results of the 2001 data collection exercise;

(b) Endorse the recommended strategy for future work;

(c) Endorse the establishment of an inter-agency working group for coordination and collaboration in environment statistics.

Notes

[1] Two tables each were provided in the questionnaire for water quality of selected rivers, lakes, and coastal areas. The number of cells in these tables formed the basis for the calculations, although some countries provided information on separate tables for additional measuring stations. For ambient air concentrations of SO_2, NO_x, and SPM10, the basis for the calculations of completeness were the two stations listed for a residential, an industrial and a background measuring station, respectively.

Annex I

Analysis of the results of the United Nations Statistics Division Questionnaire 2001 on Environment Statistics: replies for priority variables and best-performing variables by topic and by table

Water

1. The section on water consists of eight tables covering water resources, water use and supply, waste-water generation and treatment, pollutant discharges and water quality of selected rivers, lakes and coastal areas.

2. Table 1 presents an overview of the number of responses to priority variables. It also lists the variables that elicited the highest response rate in each table. Many countries were able to provide time series for basic hydro-meteorological data (e.g., precipitation), and for main aggregates of water abstraction, supply and use (e.g., total water abstraction, fresh surface-water and fresh groundwater abstraction, public water supply), less so in their breakdowns by sectors or economic activities. Data for more indicators of water resources and water balance (e.g., total return flows, total water consumption, dependable surface-water resources) were much less available. The resulting data gaps were sometimes filled through time series modelling and estimation based on limited assessment studies.

3. Water-quality data are most plentiful for rivers, followed by lakes and then coastal areas, but this should be seen in the context of geographical relevance. The parameters for which data are collected at measuring stations for rivers, lakes and/or coastal areas may differ from those in the questionnaire. The questionnaire requests responses for a broad range of quality parameters, resulting in many blank cells for countries where only basic water quality statistics, such as oxygen saturation and phosphate and nitrogen concentrations, are collected. Some countries made use of the opportunity to include additional parameters in the tables.

4. The area of waste-water treatment, although an increasingly important aspect of water resource management, still suffers from a lack of sufficient data, and most of the information available is for waste-water treatment by public facilities.

Table 1
Replies for priority variables and best-performing variables by table in the water section of the questionnaire

Priority variables by table	*Countries providing data*	*Best-performing variables by table*	*Countries providing data*
Renewable freshwater resources			
Total renewable freshwater resources	10	Precipitation	33
Water use by source			
Total water abstraction	30	Fresh surface water	33
Renewable groundwater available for annual abstraction	17	Fresh groundwater	33
Water supply by supply category and activities			
Total national supply	27	Total national supply	27
Public supply to:	22	Public supply to households	26
Self-supply to:	7	Public supply to:	22
Other supply	7	Public supply to agriculture and forestry	19
Waste-water treatment			
Population connected to waste-water treatment	11	Treated in public treatment plants	26
Total number of waste-water treatment plants	24	Total number of waste-water treatment plants	24
Total waste water generated	19	Treated in public treatment plants: biological treatment	22
Non-treated waste water	14	Total waste water generated	19
Treated in public treatment plants	26	Treated in public treatment plants: mechanical treatment	19
Treated in other treatment plants	7	Non-treated waste water	14
Pollutant discharges			
Biochemical oxygen demand	10	Biochemical oxygen demand	10
Total phosphorus	7	Total suspended solids	8
Total nitrogen	6	Total phosphorus	7

Priority variables by table	*Countries providing data*	*Best-performing variables by table*	*Countries providing data*
Water quality of selected rivers			
Total water discharges	10	Biochemical oxygen demand	24
Biochemical oxygen demand	24	Dissolved oxygen	20
Dissolved oxygen	20	Chemical oxygen demand	20
Water quality of selected lakes			
Chlorophyll-a	5	Chemical oxygen demand	13
Biochemical oxygen demand	12	Biochemical oxygen demand	12
Water quality of selected coastal areas			
Chlorophyll-a	4	Total phosphorus	7
Biochemical Oxygen Demand (BOD5)	5	Total nitrogen	6

Air

5. The section on air consists of 10 tables covering air pollution and ambient air quality by selected pollutants. Table 2 below provides an overview of the number of responses according to priority variables and those eliciting the most replies.

6. Responses on traditional pollutants, such as sulphur dioxide and nitrogen oxides (NO_x), still lead in the areas of air pollution and air quality. As regards emissions, there is a significant improvement in reporting on all pollutants, especially for the priority variables. The overall improvement of reporting in this area is undoubtedly due to the existence of an international convention and a common methodology for the calculation of the emissions and for establishing emission inventories. For many countries, however, time series are not yet available.

Waste

7. The section on waste contains two tables covering the generation and treatment of the most important types of waste in units of volume, as well as the number of waste-treatment facilities and access to waste-management services. The collection of statistics on waste is affected by the lack of a uniform and internationally endorsed classification of waste, which means that existing data collections on waste are based on often significantly different national nomenclatures.

8. The two tables in the questionnaire reflect a synopsis of the existing methodology; for most developing countries the development of a comprehensive waste statistics system poses a considerable challenge. Waste-collection and waste-treatment services tend to be concentrated in urban environments, and data are often available only from municipal waste collectors or businesses working on behalf of municipalities. Waste statistics are therefore the weakest area of the questionnaire,

with only a very few countries being able to complete sizeable sections. Table 3 provides a summary analysis of the number of replies for priority variables and best-performing variables in each table.

Table 2
Replies for priority variables and best-performing variables by table in the air section of the questionnaire

Priority variables by table	*Countries providing data*	*Best-performing variables by table*	*Countries providing data*
		Emissions of SO_2	
Total emissions of SO_2	31	Total emissions of SO_2	31
		Emissions of NO_x	
Total emissions of NO_x	32	Total emissions of NO_x	32
		Emissions of non-methane organic compounds (NM-VOCs)	
Total emissions of NM-VOCs	25	Total emissions of NM-VOCs	25
		Emissions of lead	
Transport emissions of lead	4	Total emissions of lead	10
		Emissions of CO_2	
Total emissions of CO_2	28	Total emissions of CO_2	28
		Emissions of CH_4	
Total emissions of CH_4	26	Total emissions of CH_4	26
		Emissions of N_2O	
Total emissions of N_2O	22	Total emissions of N_2O	22
		Ambient air concentration of SO_2	
Ambient concentration of SO_2	31	Ambient concentration of SO_2	31
		Ambient air concentration of NO_2	
Ambient concentration of NO_2	27	Ambient concentration of NO_2	27
		Ambient air concentration of particles smaller than 10 microns (SPM10)	
Ambient concentration of SPM10	27	Ambient concentration of SPM10	27

Table 3
Replies for priority variables and best-performing variables by table in the waste section of the questionnaire

Priority variables by table	*Countries providing data*	*Best-performing variables by table*	*Countries providing data*
Waste generation and treatment			
Hazardous waste generation	22	Municipal waste generation	26
Recycled/reused/recovered	11	Total waste generation	24
Incinerated	6	Hazardous waste generation	22
Landfilled	11	Industrial waste generation	18
Other waste treatment	9	Total waste: recycled/reused/recovered	15
Municipal waste generation	26	Total waste: landfilled	14
Recycled/reused/recovered	10	Total waste: incinerated	13
Incinerated	8	Municipal waste: landfilled	13
Landfilled	13	Total waste: other waste treatment	11
Other waste treatment	3	Hazardous waste: recycled/reused/ recovered	11
Waste-treatment facilities			
Waste-treatment facilities	13	Waste-treatment facilities	13
Total population served by waste management services	11	Waste-treatment facilities: landfill sites	12

Land

9. The section on land consists of four tables covering land use and land degradation. Similar to the practice in the OECD/Eurostat questionnaire, the full land-use classification of the Economic Commission for Europe was applied for the table on land use, with different details for the individual classes. The highest rates of completeness for land use were for land area, agricultural land and forest land, which are variables derived from established fields of statistical data collection. Data for the rest of the classifications were very scarce, and few countries completed these parts at all.

10. With regard to land degradation, the variables on soil erosion, salinization and desertification were very poorly responded to. Apart from the fact that these issues are not relevant in all countries, there are methodological problems in the calculation of these indicators, because of the lack of established or internationally accepted definitions and classifications, as well as the measurement methods themselves.

Table 4
Replies for priority variables and best-performing variables by table in the land section of the questionnaire

Priority variables by table	*Countries providing data*	*Best-performing variables by table*	*Countries providing data*
		Land use by type	
Total area of the country	53	Total area of the country	53
Of which protected	17	Total land area	53
Total land area	53	Agricultural land	53
Agricultural land	53	Arable land	49
Forest and other wooded land	49	Land under permanent crops	49
Built-up and related land	20	Forest and other wooded land	49
Wet open lands	14	Waters	33
Dry open land with special vegetation cover	3	Land under permanent meadows and pastures	26
Open land without, or with insignificant, vegetation cover	10	Built-up and related land	20
Waters	33	Of which protected	17
		Soil erosion	
Total area affected	10	Total area affected	10
		Salinization	
Total area affected	5	Total area affected	5
		Desertification	
Total area affected	6	Total area affected	6

Annex II

International environmental data collection activities

The following table provides an overview of regular, international collections of data from national sources on environmental issues undertaken by the United Nations, its specialized agencies, intergovernmental organizations, conventions and non-governmental institutions. It is an updated and adjusted review based to a large extent on the assessment conducted by the Committee on Environmental Policy of the Economic Commission for Europe (see CEP/AC.10/2002/19).

Name of organization/institution	*Description of data collection*	*Geographical coverage*	*Temporal coverage*	*Outputs*
Organization for Economic Cooperation and Development (OECD) — http://www.oecd.org	System of Information on Resources and the Environment • OECD Questionnaires on the State of the environment, environmental expenditure and revenue • Topics covered: air (emissions, quality for urban and national), inland waters (resources, abstractions, waste-water treatment, pollutant discharges, river and lake water quality), marine environment (pollutant discharges, coastal and marine water quality), land (land use and conversions, soil erosion), forest (forest cover, forest resource use, forest ownership), wildlife (species and population status), waste (generation, management, treatment and disposal, municipal and household waste, industrial waste, hazardous waste), noise (exposed population by noise level), environmental expenditure and revenues (public, business, household sectors)	OECD countries and OECD partner countries, accession States and European Free Trade Association (EFTA) countries; cooperation with European Environment Agency on relevant topics	• Biennial since 1981 • Some variables and indicators have time series available since 1970 or are collected every 5 or 10 years	• OECD Environmental Data Compendium (since 1984) • OECD Environmental Indicators (since 1991) • Key indicators and summaries on http://www.oecd.org/env/

Name of organization/institution	*Description of data collection*	*Geographical coverage*	*Temporal coverage*	*Outputs*
Statistical Office of the European Communities (EUROSTAT) — http://europa.eu.int/comm/eurostat/	Joint OECD/EUROSTAT Questionnaire on the State of the Environment • Topics covered: waste (generation, treatment), water (resources, abstraction, use and treatment), environmental expenditure, land use, agri-environment, transport-environment	EU Member States and accession States	• Biennial since 1991 • Most data available since 1980	• CD-ROM of EUROSTAT environment statistics yearbook
Blue Plan Medstat project — http://www.planbleu.org/indexa.htm	Environmental statistics in the Mediterranean, MEDSTAT-Environment • Topics covered: Environment statistics and three focus areas: water, soil and waste	12 southern and eastern Mediterranean countries that are partners of the European Union in environment statistics	• Project duration: 1999 (inception), 2000-2002 (project phases)	• Various publications within the framework of the Plan Bleu project
United Nations Framework Convention on Climate Change — http://www.unfccc.int	Inventories of greenhouse gas emissions and other pollutants • Gases covered: CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), SF_6, CO, Nox, NM-VOCs, SO_2 • Data reported in common reporting format by annex I parties. Non-annex I parties are encouraged to report in common reporting format	Annex I parties and selected non-annex I parties	• Annex I parties 1990-2000 • Non-annex I parties mostly 1990 and 1998, with some additional years between 1990 and 1998	• Via Internet at http://unfccc.int/resource/index.html
Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer — http://www.unep.org/ozone or http://www.unep.ch/ozone	Production and consumption of ozone-depleting substances • Substances covered: CFCs, hydrochlorofluorocarbons (HCFCs), methyl chloroform, carbon tetrachloride, methyl bromide	Parties to the Montreal Protocol	• Annual data submission by parties to the Protocol • Data available since 1986 for CFCs and halons, 1991 for methyl bromide, 1989 for the rest	• Biennial publication • Via e-mail from ozoneinfo@unep.org
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal — http://www.basel.int	Hazardous and other waste • Topics covered: generation, import, export and transit of hazardous and other wastes	Reporting parties to the Convention	• Annual since 1993	• Publication for 1993 and 1996 • Publication and electronic version for 1997-1999 under http://www.basel.int/pub/nationreport.html

Name of organization/institution	*Description of data collection*	*Geographical coverage*	*Temporal coverage*	*Outputs*
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) — http://www.cites.org, http://www.unep-wcmc.org	International wildlife trade • Topics covered: international data on trade of wild flora and fauna, some legislative, regulatory and administrative measures to enforce the Convention	Parties to the Convention	• Biennial reports by parties to the Convention • International wildlife trade data since 1980	• Via written request to the United Nations Environment Programme-World Conservation Monitoring Centre
Food and Agriculture Organization of the United Nations (FAO) — http://www.fao.org	FAO statistical databases (FAOSTAT) — online, multilingual database system • Topics covered: agricultural production, trade and production and trade indices, commodity balances, food supply and balance sheets, producer prices, land use (including irrigation), means of production (including pesticides trade and consumption, fertilizers), food aid, exports of cereals, population, fishery data (including primary and processed products), fish production, forestry and trade flow data FISHSTAT — online fisheries databases • Topics covered: aquaculture production (quantities and values), capture production, total production, fisheries commodities production and trade, Eastern Central Atlantic capture production, Mediterranean and Black Sea capture production Forestry Information Service (FORIS) — online forestry database • Topics covered: forest area by type and classification	Global	• FAOSTAT: 1961-2000, data availability varies according to domain • FISHSTAT: 1950-2000, data availability varies according to domain • FORIS: according to Global Forest Resources Assessment, 1990 and other years • AQUASTAT: most recent information available	• FAOSTAT under http://faostat.fao.org, CD-ROM, various publications • FISHSTAT under http://www.fao.org/fi/statist/FISOFT/FISHPLUS.asp • FORIS under http://www.fao.org/forestry/fo/country/nav_world/jsp, Global Forest Resources Assessment 2000 • AQUASTAT under http://www.fao.org/waicent/faoinfo/agricult/agl/aglw/aquastat/dbase/index.stm

Name of organization/institution	*Description of data collection*	*Geographical coverage*	*Temporal coverage*	*Outputs*
	Rural Water Statistical System (AQUASTAT) — Information system on water and agriculture • Topics covered: land use, water resources, land under irrigation, source of irrigation water, irrigated crops and intensification, population, water use, irrigation techniques, environment drainage, renewable water resources, agricultural water use, spatial data on water use and irrigation, country profiles, regional overviews, institutions			
European Environment Agency (EEA) — http://www.eea.eu.int	Several data collections and databases produced and maintained by European Topic Centres (ETC) • ETC-ACC: air quality and climate change (http://etc-acc.eionet.eu.int/databases) • ETC-Water: water quality, groundwater, marine waters (http://water.eionet.eu.int/Databases) • ETC-Terrestrial environment: CORINE land cover database (http://dataservice.eea.eu.int/dataservice/metadetails.asp?table=landcover) • ETC-NPB: nature protection and biodiversity (http://dataservice.eea.eu.int/dataservice/metadetails.asp?table=desigarea) • ETC-Waste: waste generation and treatment (http://wastebase.eionet.eu.int)	European Union countries and accession States, EFTA, western Balkan countries and newly independent States	• Varies according to topic	• Various Internet sites as listed for the ETCs • As publication only (water quantity) • By request from Norwegian Institute for Water Research (marine waters) • Indicator fact sheets and publications (groundwater)

Name of organization/institution	*Description of data collection*	*Geographical coverage*	*Temporal coverage*	*Outputs*
United Nations Environment Programme Global Environment Monitoring System/Water — http://www.cciw.ca/gems/intro.html	Global Environment Monitoring System — Freshwater Quality Programme • Topics covered: freshwater quality parameters of rivers for participating stations	Global for 69 participating countries	• Triennial assessments from 1979 until 1999	• Via Internet under http://www.cciw.ca/gems/gems-e.html • On request • Additional publications available under above Internet address
Center for Research on the Epidemiology of Disasters — http://www.cred.be/	Natural and man-made disasters database (EM-DAT) • Topics covered: natural and man-made disasters (type of disaster, location, date, number of people killed, injured, homeless, total population affected, damage in United States dollars, euro and local currency, data sources) Conflict data Climate Information Project (CIP) World Disaster Report	Global	• Natural and man-made disasters, 1900-2001 • Conflict data and CIP, 1975-2001 • World Disaster Report, 1999-2001	• Via Internet under http://www.cred.be/emdat/intro.html (registration required) • Summary data via Internet under http://www.cred.be/emdat/intro.html
World Conservation Union (IUCN) — http://www.iucn.org	IUCN Red List of threatened species • Topics covered: numbers of threatened species by major groups of organisms, changes in numbers of species in threatened categories, number of animal and plant species in each Red List category in each taxonomic class, number of species in each Red List category in each major animal and plant taxonomic group, number of threatened species in each major group of organisms in each country, number of extinct, threatened and other species of animals and plants in each Red List category in each country	Global	• Since 1994, major revision in 2000	• Via Internet under http://www.redlist.org/info/tables.html • Database search available under http://www.redlist.org/search/search-basic.html • Publications

Name of organization/institution	*Description of data collection*	*Geographical coverage*	*Temporal coverage*	*Outputs*
World Monitoring and Conservation Centre — http://www.unep-wcmc.org/	Protected areas information • Topics covered: protected areas, size and location according to IUCN Protected Areas Management Categories Ia to VI, date of designation	Global	• Work began in 1981 listing date of designation	• Via Internet under http://www.wcmc.org.uk/data/database/uncombo.html • Publication *1992 Protected Areas of the World*
World Health Organization (WHO) — http://www.who.int	Air Management Information System (AMIS) and Global Air Quality Partnership • Global air quality information exchange system • Set of Microsoft Access databases with core air pollution database (annual means, 95 percentiles, number of days WHO guideline values were exceeded) • Topics covered: air quality management (air quality management instruments used in cities, indoor and ambient air pollutant concentrations, noise levels, health effects, control actions, air quality standards, emission standards, emission inventories, dispersion modelling tools)	Global (CD-ROM contains data on 150 cities in 45 countries)	• Varies, CD-ROM has data from 1980-1999	• AMIS 3.0, 2001 available on CD-ROM